

DEPARTMENT OF THE INTERIOR

FRANKLIN K. LANE, Secretary

UNITED STATES GEOLOGICAL SURVEY

GEORGE OTIS SMITH, Director

BULLETIN 632

# SPIRIT LEVELING IN WEST VIRGINIA

1896 TO 1915, INCLUSIVE

R. B. MARSHALL, CHIEF GEOGRAPHER

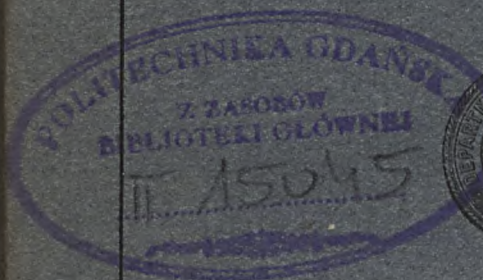
Work done in cooperation with the  
West Virginia State Geological Survey during 1898 to 1915, inclusive  
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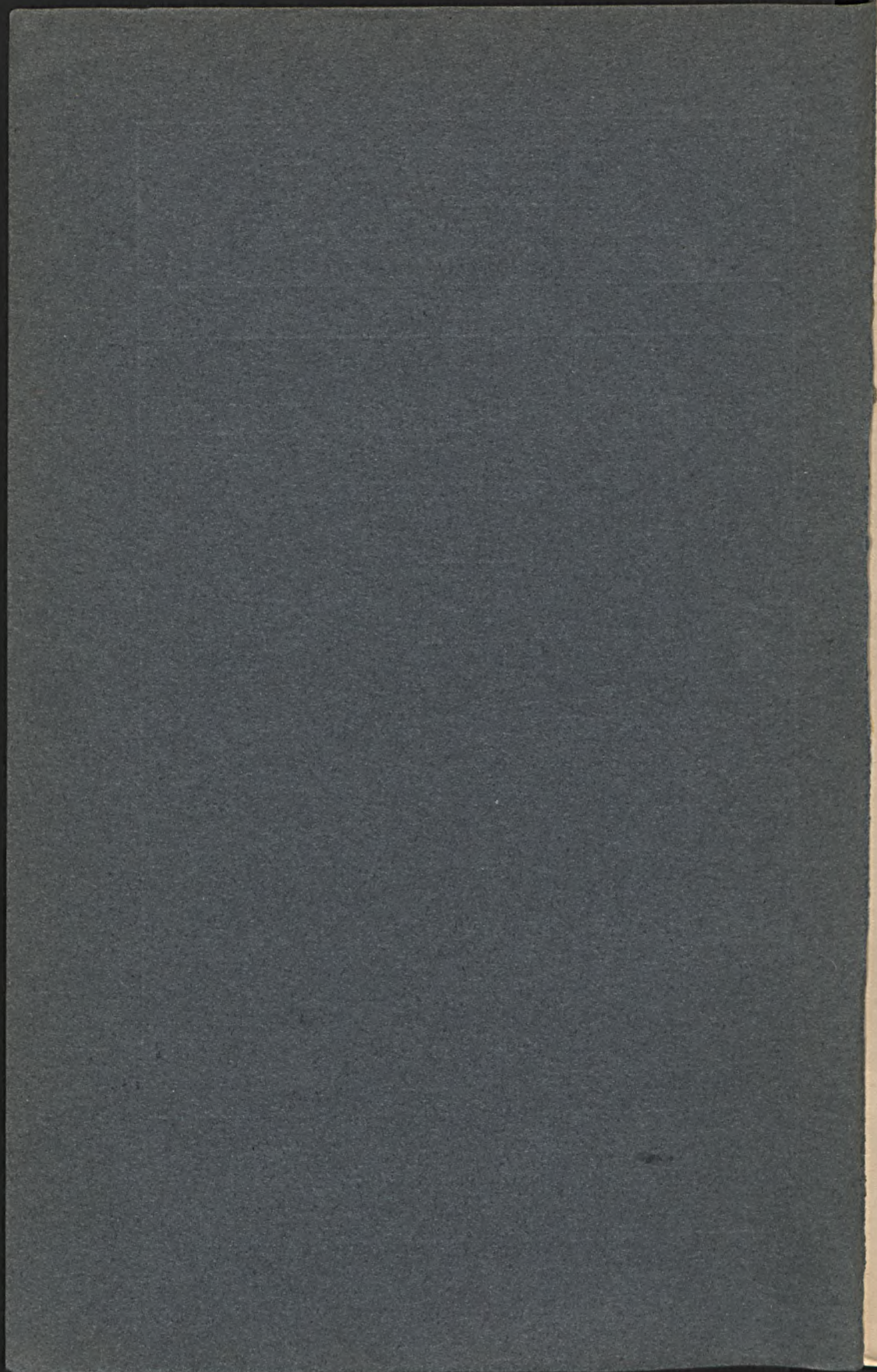
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## MARTINSBURG QUADRANGLE.

[Latitude 39° 15'-39° 30'; longitude 77° 45'-78°.]

From Martinsburg northeast along Cumberland Valley R. R. to Berkeley, thence east and south to Shepherdstown.

Martinsburg, at King Street entrance of Berkeley County courthouse, eastern end of first step up from sidewalk; tablet stamped " 457. 7" .....	Feet. 456. 692
• Martinsburg, about 0.2 mile west of station, about 280 feet east of milepost " Baltimore 100 miles," in middle of north coping of an arch; copper bolt (Baltimore & Ohio R. R. bench mark 75).....	432. 913
Martinsburg, 1.5 miles northeast of, 10 feet east of Cumberland Valley R. R., on limestone ledge; chiseled square, marked " 487 B. M." .....	487. 019
Martinsburg, 2.5 miles northeast of, 225 feet north of milepost 91, 27 feet east of Cumberland Valley R. R., on limestone ledge; chiseled square, marked " 487.4 B. M." .....	487. 463
Berkeley, opposite station; top of rail.....	477.265
Berkeley, 1,500 feet north of station, overhead bridge, in front face of east abutment; aluminum tablet stamped " 471" .....	471.130
Berkeley, 0.3 mile northeast of, 45 feet north of over-grade bridge, 10 feet west of Cumberland Valley R. R., in limestone ledge; bronze tablet stamped " Prim. Trav. Sta. No. 1 470 1914" .....	470. 096
Berkeley, 1.9 miles southeast of, 300 feet southeast of dwelling, 15 feet south of highway, on limestone ledge; chiseled square, marked " 394.5 B. M. ....	394. 568
Berkeley, 3.1 miles southeast of, 25 feet south of road fork, on limestone ledge; chiseled square, marked " 472 B. M. ." .....	472.058
Berkeley, 4.4 miles east of, 150 feet east of Herman Lam residence, at right-angle turn in highway, 15 feet east of highway, in limestone ledge; bronze tablet stamped " 468 " .....	468.498
Scrabble, 1.6 miles west of, 25 feet west of road fork, 50 feet east of road fork, 20 feet north of highway, on limestone ledge; chiseled square, marked " 434 B. M." .....	434.103
Scrabble, 0.5 mile west of, 50 feet west of road fork, 7 feet north of highway, on limestone ledge; chiseled square, marked " 394.8 B. M." .....	394. 925
Scrabble, 50 feet east of highway bridge over Rocky Marsh Run, 14 feet south of highway; bronze tablet stamped " Prim. Trav. Sta. No. 2, 367,1914" .....	366.834
Scrabble, 1.2 miles southeast of, 12 feet south of highway, in limestone ledge; chiseled square, marked " 407.9 B.M." .....	407. 996
Shepherdstown, 3.4 miles north of, 30 feet north of road fork, in top of stone retaining wall; chiseled square, marked " 422.4 B. M." .....	422.572
Shepherdstown, 2.1 miles north of, 70 feet north of road fork, 12 feet west of highway, in limestone ledge; bronze tablet stamped " 462" .....	461. 824
Shepherdstown, 1.1 miles north of, 125 feet west of dwelling, 10 feet south of highway, in limestone ledge; chiseled square, marked " 424.4 B. M." .	424. 556
Shepherdstown, northwest corner of German and Duke streets, in center of top of manhole guard stone; chiseled square.....	443.422
Shepherdstown, in front face of post office, 3 feet east of main entrance; aluminum tablet stamped " Adj. 406" .....	405.451
From Shepherdstown southwest via Kearneysville to point 3.4 miles south of Middleway.	
Shepherdstown, 1 mile southwest of, 60 feet west of northwest corner of fair grounds, 12 feet south of highway, in limestone ledge; chiseled square, marked " 467.2 B. M. ." .....	467. 348
Shepherdstown, 1.9 miles southwest of, 35 feet south of Drake monument, on limestone outcrop; chiseled square, marked " 545.8 B. M." .....	545. 982



Shepherdstown, 2.7 miles southwest of, 14 feet south of highway, 500 feet southwest of road fork, in limestone outcrop; bronze tablet stamped "515".....	Feet. 515. 224
Kearneysville, 1.7 miles northeast of, in southeast corner of crossroads; chiseled square on limestone ledge, marked "517.0 B. M.".....	517. 217
Kearneysville, 0.6 mile northeast of, at road fork, 18 feet south of highway, on limestone ledge; chiseled square, marked "515.6 B. M.".....	515. 806
Kearneysville, about 200 feet west of railroad crossing, south side of road, in ledge; bronze tablet stamped "P. Trav. Sta. No. 8, 1914, 548".....	548. 164
Kearneysville, about 0.3 mile south of, about 75 feet east of milepost Balto. 92, in rock on north side of tracks; copper bolt (B. & O. b. m. No. 67).....	564. 415
Leetown, 2.4 miles north of, east side of road, in root of tree; copper nail with washer, stamped "U. S. G. S. W. Va. B. M.", marked "U. S. B. M. 523".....	522. 94
Leetown, 1 mile north of, in triangle made by forks of roads, on ledge; chiseled square, marked "U. S. B. M. 495".....	494. 60
Leetown, north side of doorway of M. E. Church South, in cement walk; bronze tablet stamped "503".....	502. 910
Middleway, 1.8 miles northeast of, east side of road, at summit of hill, in telephone pole; spike marked "U. S. B. M. 587".....	587. 41
Middleway, 1.1 miles north of, east side of road, in telephone pole; spike marked "U. S. B. M. 508".....	508. 20
Middleway, northeast corner of vacant building owned by Mrs. W. H. Gilbert; bronze tablet stamped "500".....	500. 014
Middleway, 1.2 miles south of, west side of road, on ledge; chiseled square, marked "U. S. B. M. 540".....	540. 518
Middleway, 2.1 miles south of, east side of road, in stump; copper nail with washer, stamped "U. S. G. S. W. Va. B. M.", marked "U. S. B. M. 562".....	562. 24
Middleway, 3.4 miles south of, 150 feet south of forks of roads, east side of road, in ledge; bronze tablet stamped "585".....	584. 634

**From Shepherdstown southeast to point 1.8 miles west of Harpers Ferry.**

Shepherdstown, 1 mile south of, in south vertex of triangle at road junction, in top of property corner stone; chiseled square, marked "462.4 B. M."..	462. 62
Shepherdstown, 2.1 miles southeast of, at crossroads, 7 feet north of concrete monument "4," on limestone ledge; chiseled square, marked "472.5 B. M.".....	472. 66
Shepherdstown, 3.1 miles southeast of, 100 feet west of Lucas Creek, 14 feet north of highway, in limestone ledge; bronze tablet stamped "372"....	371. 865
Shepherdstown, 4 miles southeast of, 10 feet north of highway, on limestone ledge; chiseled square, marked "439 B. M.".....	439. 21
Harpers Ferry, 5 miles north of, about 400 feet west of Potomac River, 12 feet east of highway, in limestone ledge; bronze tablet stamped "318".....	317. 980
Harpers Ferry, 4.8 miles north of, 400 feet north of dwelling, 8 feet west of highway, on limestone ledge; chiseled square, marked "379.7 B. M."..	379. 945
Harpers Ferry, 3.9 miles north of, 5 feet east of highway, on limestone ledge; chiseled square, marked "381.9 B. M.".....	382. 18
Harpers Ferry, 3.3 miles north of, 50 feet south of road fork, 16 feet east of road, in limestone ledge; bronze tablet stamped "431".....	431. 141
Harpers Ferry, 2.2 miles northwest of, 12 feet west of highway, on limestone ledge; chiseled square, marked "400.6 B. M.".....	400. 90
Harpers Ferry, 1.8 miles west of, northeast corner of Baltimore & Ohio concrete overgrade bridge; painted square, marked "324.2".....	324. 502



## From Keys Ford northeast to Harpers Ferry.

	Feet.
Keys Ford; water surface of Shenandoah River, Aug. 1, 1914, 9.20 a. m....	298. 0
Keys Ferry; water surface of Shenandoah River, Aug. 1, 1914, 9.45 a. m..	295. 2
Keys Ferry, 50 feet west of landing, east side of road, in ledge; bronze tablet stamped "301".....	301. 214
Harpers Ferry Lime Co.'s ferry; water surface of Shenandoah River, Aug. 1, 1914, 11 a. m.....	294. 5
Millville, in front of station; top of south rail.....	334. 3
Millville, opposite station, north side of road, in root of tree; copper nail with washer stamped "U. S. G. S. W. Va. B. M.," marked "U. S. B. M. 338".....	338. 286
Millville, 1 mile northeast of, 50 feet north of milepost "H. F. 3 S. J. 48," west side of track, in rail rest; copper nail with washer, stamped "U. S. G. S. W. Va. B. M.," marked "U. S. B. M. 310".....	309. 76
Millville, 2 miles northeast of, 100 feet north of milepost "H. F. 2 S. J. 49," west side of track, in ledge; bronze tablet stamped "298".....	297. 713
Millville, 3.1 miles northeast of, west side of north end of trestle; painted bolthead, marked "U. S. B. M. 283".....	283. 26

## From Martinsburg southwest along Cumberland Valley R. R. 3.7 miles (part of circuit; see continuation in Gerardstown quadrangle).

Martinsburg, about 0.2 mile west of station, about 280 feet east of milepost "Balto. 100," in middle of north coping of an arch; copper bolt (B. & O. b. m. No. 75).....	432. 913
Martinsburg, 60 feet north of Cumberland Valley R. R. depot, 10 feet west of tracks, in root of tree; copper nail with washer, stamped "U. S. G. S. W. Va. B. M.," marked "U. S. B. M. 466".....	466. 419
Martinsburg, in front of Cumberland Valley R. R. depot; top of east rail..	467. 4
Martinsburg, 1 mile southwest of, east side of track, in telephone pole; spike marked "U. S. B. M. 498".....	497. 79
Martinsburg, 2.2 miles southwest of, about 600 feet north of milepost 96, east side of track, in ledge; bronze tablet stamped "532".....	531. 591
Martinsburg, 3.7 miles southwest of, 15 feet south of private road crossing, east side of track, on ledge; chiseled square, marked "U. S. B. M. 535"....	535. 00

## Williamsport quadrangle.

## BERKELEY COUNTY.

The elevations in the following list are based upon the 1912 adjustment of precise leveling.

The leveling was done by J. M. Harris in 1908 and by C. H. Semper in 1910.

## WILLIAMSPORT QUADRANGLE.

[Latitude 39° 30'-39° 45'; longitude 77° 45'-78°.]

## From Potomac River southwest along Cumberland Valley R. R. to Martinsburg.

	Feet.
Williamsport, 1.5 miles southwest of, near west end of railroad bridge No. 82-1; top of rail.....	380. 5
Potomac River, surface of water under bridge No. 82-1, August 5, 1908...	325
Williamsport, 2.3 miles southwest of, southwest corner of west bridge seat of railroad bridge No. 82-2, in top of; aluminum tablet stamped "363".	362. 310
Williamsport, 3.4 miles southwest of, top of west foundation of water tank; north end, marked "G. S. □ B. M. 361".....	361. 14



	Feet.
Falling Waters, 500 feet east of; northeast corner of east bridge seat of railroad bridge No. 85, marked "G. S. $\square$ B. M. 359".....	358. 80
Falling Waters, in front of station; top of rail.....	372. 0
Falling Waters, 0.6 mile southwest of, in top of center of south head wall of concrete box culvert under railroad at telephone pole 85/31; aluminum tablet stamped "404".....	403. 973
Bedington, 1,020 feet east of station, north side of track, in railroad concrete culvert; aluminum tablet stamped "387".....	387. 094
Bedington, in front of station; top of rail.....	392. 3
Bedington, 270 feet west of station, south side of track, in top of railroad culvert; copper bolt (Pennsylvania R. R. bench mark).....	391. 806
Bedington, 0.3 mile south of, east side of north abutment of railroad bridge over creek; top of mud wall, marked "U. S. $\square$ B. M. 396".....	395. 73
Berkeley, 1,500 feet north of station, overhead bridge, in front face of east abutment; aluminum tablet stamped "471".....	471. 13
Berkeley, in front of station; top of rail.....	477. 4



## APPENDIX A.

### PRECISE LEVELING BY THE UNITED STATES COAST AND GEODETIC SURVEY AND THE BALTIMORE & OHIO RAILROAD.

Antietam, Blacksville, Cameron, Clarington, Elizabeth, Elk Garden, Fairmont, Flintstone, Hancock, Harrisville, Keyser, Kingwood, Littleton, Mannington, Martinsburg, Parkersburg, Pawpaw, Thornton, West Union, Wheeling, and Williamsport quadrangles.

BERKELEY, DODDRIDGE, HAMPSHIRE, HARRISON, JEFFERSON, MARION, MARSHALL, MINERAL, MONONGALIA, MORGAN, PRESTON, RITCHIE, TAYLOR, WETZEL, AND WOOD COUNTIES.

The following descriptions and elevations are taken from reports of the Coast and Geodetic Survey and are here republished by permission of the Superintendent of that bureau. The bench marks were established by the Coast and Geodetic Survey and by the Baltimore & Ohio Railroad Co., and were included in the 1907 adjustment by the Coast and Geodetic Survey. The elevations were not changed by the 1912 adjustment and are not likely to be changed by any future adjustment.

For convenient reference, as results in Bulletin 399 are based on the 1903 adjustment, the elevations of bench marks established previous to 1903 are given by both the 1903 and 1907 adjustments.

#### ANTIETAM QUADRANGLE.

[Latitude  $39^{\circ} 15' - 39^{\circ} 30'$ ; longitude  $77^{\circ} 30' - 77^{\circ} 45'$ .]

Bench marks established at Harpers Ferry.

Harpers Ferry, on north side of tracks, almost directly across from Harpers Ferry signal tower, in capstone of north wing of west abutment of bridge; copper bolt (B. & O. bench mark 56A).....	Feet. 285.432
(1903 adjusted value=285.628.)	
Harpers Ferry, about 0.5 mile west of, 180 feet west of milepost "Baltimore 82 miles," in native rock on south side of tracks; copper bolt (B. & O. bench mark 57).....	290.818
(1903 adjusted value=291.014.)	

#### MARTINSBURG QUADRANGLE.

[Latitude  $39^{\circ} 15' - 39^{\circ} 30'$ ; longitude  $77^{\circ} 45' - 78^{\circ}$ .]

From Harpers Ferry northwest along Baltimore & Ohio R. R. to Martinsburg.

Engle, 1.8 miles east of, about 70 feet east of milepost "Baltimore 83 miles," in native rock on north side of tracks, about 8 feet from tracks; copper bolt (B. & O. bench mark 58).....	309.940
(1903 adjusted value=310.139.)	
Engle, about 0.7 mile east of, on south side of tracks, in middle of coping of bridge 45; copper bolt (B. & O. bench mark 59).....	354.745
(1903 adjusted value=354.946.)	



Engle, about 0.2 mile west of, about 30 feet west of milepost "Baltimore 85 miles," in native rock on south side of tracks; copper bolt (B. & O. bench mark 60).....	Feet. 386.541
(1903 adjusted value=386.744.)	
Engle, about 1.2 miles west of, about 600 feet east of milepost "Baltimore 86 miles," in native rock on north side of tracks; copper bolt (B. & O. bench mark 61).....	411.226
(1903 adjusted value=411.433.)	
Duffields, about 1 mile east of, in south end of east wall of culvert 45 G; copper bolt (B. & O. bench mark 62).....	440.895
(1903 adjusted value=441.103.)	
Duffields, about 50 feet east of milepost "Baltimore 88 miles," in west end of north coping of culvert 45 L; copper bolt (B. & O. bench mark 63).....	484.271
(1903 adjusted value=484.479.)	
Shenandoah Junction, about 0.3 mile west of, about 400 feet west of milepost "Baltimore 89 miles," in native rock on south side of tracks; copper bolt (B. & O. bench mark 64).....	530.635
(1903 adjusted value=530.848.)	
Shenandoah Junction, about 1.5 miles west of, about 500 feet west of milepost "Baltimore 90 miles," opposite telegraph pole 90-4 in a ledge of rock on north side of tracks; copper bolt (B. & O. bench mark 65).....	560.324
(1903 adjusted value=560.539.)	
Hobbs, near, about 200 feet west of milepost "Baltimore 91 miles," in north end of west abutment of bridge 45; copper bolt (B. & O. bench mark 66).....	583.929
(1903 adjusted value=584.145.)	
Kearneysville, about 0.3 mile south of, about 75 feet east of milepost "Baltimore 92 miles," in rock on north side of tracks; copper bolt (B. & O. bench mark 67).....	564.415
(1903 adjusted value=564.635.)	
Kearneysville, about 1.2 miles north of, opposite milepost "Baltimore 93 miles," section of rail set vertically in ground (B. & O. bench mark 68).....	528.359
(1903 adjusted value=528.580.)	
Van Clevesville, about 1.2 miles southeast of, opposite milepost "Baltimore 94 miles," section of rail set vertically in ground (B. & O. bench mark 69).....	497.545
(1903 adjusted value=497.767.)	
Van Clevesville, about 0.2 mile south of, almost directly behind milepost "Baltimore 95 miles," in a large rock on north side of tracks; copper bolt (B. & O. bench mark 70).....	478.086
(1903 adjusted value=478.311.)	
Van Clevesville, about 0.8 mile northwest of, 250 feet west of milepost "Baltimore 96 miles," in rock on south side of tracks; copper bolt (B. & O. bench mark 71).....	450.599
(1903 adjusted value=450.827.)	
Van Clevesville, about 1.8 miles northwest of, about 500 feet west of milepost "Baltimore 97 miles," in west end of south coping of a culvert; copper bolt (B. & O. bench mark 72).....	403.933
(1903 adjusted value=404.164.)	
Opequon, near, about 600 feet east of milepost "Baltimore 98 miles," on north side of tracks, on west end of coping of culvert at telegraph pole 97/34; copper bolt (B. & O. bench mark 73).....	384.061
(1903 adjusted value=384.291.)	
Martinsburg, 0.7 mile east of, 240 feet west of milepost "Baltimore 99 miles," in middle of north coping of bridge 49.2; copper bolt (B. & O. bench mark 74).....	399.333
(1903 adjusted value=399.568.)	



Martinsburg, about 0.2 mile west of station, about 280 feet east of milepost "Baltimore 100 miles," in middle of north coping of an arch; copper bolt (B. & O. bench mark 75).....	Feet. 432.911
(1903 adjusted value=433.147.)	
Martinsburg, about 1.5 miles northwest of, opposite milepost "Baltimore 101 miles," section of rail set vertically in ground (B. & O. bench mark 76).....	469.661
(1903 adjusted value=469.899.)	

**WILLIAMSPORT QUADRANGLE.**

[Latitude 39° 30'-39° 45'; longitude 77° 45'-78°.]

**From Martinsburg north along Baltimore & Ohio R. R. to Back Creek.**

Martinsburg, about 2.5 miles northwest of, about 800 feet west of milepost "Baltimore 102 miles," in native rock on north side of tracks; copper bolt (B. & O. bench mark 77).....	490.258
(1903 adjusted value=490.500.)	
Tabb, near, about 40 feet east of milepost "Baltimore 103 miles," in native rock; copper bolt (B. & O. bench mark 78).....	527.079
(1903 adjusted value=527.323.)	
Tabb, near, about 200 feet west of milepost "Baltimore 104 miles," in a large rock on north side of tracks; copper bolt (B. & O. bench mark 79)..	522.637
(1903 adjusted value=522.883.)	
Tabb, about 1.2 miles northwest of, opposite milepost "Baltimore 105 miles;" section of rail set vertically in ground (B. & O. bench mark 80).	518.103
(1903 adjusted value=518.349.)	
North Mountain, about 1.2 miles southeast of, about 500 feet west of milepost "Baltimore 106 miles," between tracks in the bridge seat of the east abutment of bridge 52; copper bolt (B. & O. bench mark 81).....	506.938
(1903 adjusted value=507.188.)	
North Mountain, about 0.2 mile south of station, 850 feet west of milepost "Baltimore 107 miles," between tracks in bridge seat of east abutment of bridge 52½; copper bolt (B. & O. bench mark 82).....	527.896
(1903 adjusted value=528.149.)	
North Mountain, about 0.5 mile north of, opposite milepost "Baltimore 108 miles;" section of rail set vertically in ground (B. & O. bench mark 83).	528.471
(1903 adjusted value=528.726.)	
North Mountain, about 1.5 miles northwest of, about 100 feet east of milepost "Baltimore 109 miles;" section of rail set vertically in ground (B. & O. bench mark 84).....	504.116
(1903 adjusted value=504.374.)	
Back Creek, near, opposite milepost "Baltimore 110 miles;" section of rail set vertically in ground (B. & O. bench mark 85).....	461.840
(1903 adjusted value=462.700.)	

**HANCOCK QUADRANGLE.**

[Latitude 39° 30'-39° 45'; longitude 78°-78° 15'.]

**From Back Creek northwest along Baltimore & Ohio R. R. to Sir Johns Run.**

Back Creek, west of, in north end of the west abutment of bridge 53; copper bolt (B. & O. bench mark 86).....	426.400
(1903 adjusted value=426.662.)	
Cherry Run, about 1.5 miles southeast of, opposite milepost "Baltimore 112 miles;" section of rail set vertically in ground between tracks (B. & O. bench mark 87).....	391.636
(1903 adjusted value=391.900.)	



Cherry Run, about 0.6 mile east of, in south end of bridge seat of west abutment of bridge 54; copper bolt (B. & O. bench mark 88).....	Feet. 384.835
(1903 adjusted value=385.101.)	
Cherry Run, about 0.5 mile west of, opposite milepost "Baltimore 114 miles;" section of rail set vertically in ground (B. & O. bench mark 89).....	396.597
(1903 adjusted value=396.865.)	
Miller, near, opposite milepost "Baltimore 115 miles;" section of rail set vertically in ground (B. & O. bench mark 90).....	404.336
(1903 adjusted value=404.608.)	
Miller, near, opposite milepost "Baltimore 116 miles;" section of rail set vertically in ground (B. & O. bench mark 91).....	396.302
(1903 adjusted value=396.575.)	
Sleepy Creek, about 0.4 mile east of, opposite milepost "Baltimore 117 miles;" section of rail set vertically in ground (B. & O. bench mark 92).....	399.186
(1903 adjusted value=399.461.)	
Sleepy Creek, between tracks in bridge seat of east abutment of bridge 55; copper bolt (B. & O. bench mark 92A).....	395.560
(1903 adjusted value=395.836.)	
Sleepy Creek, 0.5 mile west of, opposite milepost "Baltimore 118 miles;" section of rail set vertically in ground (B. & O. bench mark 93).....	401.249
(1903 adjusted value=401.527.)	
Sleepy Creek, about 1.5 miles west of, opposite milepost "Baltimore 119 miles;" section of rail set vertically in ground (B. & O. bench mark 94).....	405.783
(1903 adjusted value=406.061.)	
Sleepy Creek, about 2.5 miles west of, opposite milepost "Baltimore 120 miles;" section of rail set vertically in ground (B. & O. bench mark 95).....	406.948
(1903 adjusted value=407.229.)	
Hancock, about 2 miles east of, opposite milepost "Baltimore 121 miles;" section of rail set vertically in ground (B. & O. bench mark 96).....	405.058
(1903 adjusted value=405.341.)	
Hancock, about 1 mile east of, opposite milepost "Baltimore 122 miles;" section of rail set vertically in ground (B. & O. bench mark 97).....	409.081
(1903 adjusted value=409.366.)	
Hancock, west end of north coping of bridge 56; copper bolt (B. & O. bench mark 97 A).....	417.388
(1903 adjusted value=417.675.)	
Hancock, about 0.2 mile west of, opposite milepost "Baltimore 123 miles;" section of rail set vertically in ground (B. & O. bench mark 98).....	418.746
(1903 adjusted value=419.034.)	
Hancock, about 1.2 miles southwest of, opposite milepost "Baltimore 124 miles;" copper bolt set vertically in ground (B. & O. bench mark 99)...	417.217
(1903 adjusted value=417.507.)	
Round Top, about 1 mile northeast of, opposite milepost "Baltimore 125 miles;" section of rail set vertically in ground (B. & O. bench mark 100).....	415.603
(1903 adjusted value=415.896.)	
Round Top, opposite milepost "Baltimore 126 miles;" section of rail set vertically in ground (B. & O. bench mark 101).....	426.630
(1903 adjusted value=426.927.)	
Round Top, about 1 mile southeast of, 150 feet east of milepost "Baltimore 127 miles;" in a rock outcrop on the north side of the tracks; copper bolt (B. & O. bench mark 102).....	426.371
(1903 adjusted value=426.670.)	
Sir Johns Run, about 0.5 mile north of, opposite milepost "Baltimore 128 miles;" section of rail set vertically in ground (B. & O. bench mark 103).....	424.943
(1903 adjusted value=425.247.)	



Sir Johns Run, about 0.5 mile south of, 20 feet west of telegraph pole 128/38, in native rock on south side of tracks; copper bolt (B. & O. bench mark 104).....	Feet. 426.699
(1903 adjusted value=427.006.)	
Sir Johns Run, about 0.5 mile south of, about 400 feet west of milepost "Baltimore 130 miles;" set in culvert coping on south side of tracks; copper bolt (B. & O. bench mark 105) .....	426.600
(1903 adjusted value=426.909.)	

## PAWPAW QUADRANGLE.

[Latitude 39° 30'-39° 45'; longitude 78° 15'-78° 30'.]

## From Great Cacapon west along Baltimore &amp; Ohio R. R. to Little Cacapon.

Great Cacapon, 1 mile east of, about 200 feet east of milepost "Baltimore 131 miles;" in large rock on north side of track; copper bolt (B. & O. bench mark 106).....	436.334
(1903 adjusted value=436.648.)	
Great Cacapon, near, between tracks in bridge seat of east abutment of bridge 57 across Great Cacapon river; copper bolt (B. & O. bench mark 107).....	435.613
(1903 adjusted value=435.929.)	
Great Cacapon, about 1 mile west of, opposite milepost "Baltimore 133 miles;" section of rail set vertically in ground (B. & O. bench mark 108). (1903 adjusted value=453.298.)	452.978
Woodmont, 0.3 mile west of, opposite milepost "Baltimore 134 miles;" section of rail set vertically in ground (B. & O. bench mark 109).....	450.435
(1903 adjusted value=450.759.)	
Lineburg, about 0.8 mile east of, opposite telegraph pole 135/4; copper bolt in rock, on south side of tracks (B. & O. bench mark 110).....	454.169
(1903 adjusted value=454.495.)	
Lineburg, about 0.2 mile west of, opposite milepost "Baltimore 136 miles;" section of rail set vertically in ground (B. & O. bench mark 111).....	458.214
(1903 adjusted value=458.541.)	
Lineburg, about 1.2 miles south of, 25 feet east of milepost "Baltimore 137 miles;" in a rock on south side of tracks; copper bolt (B. & O. bench mark 112).....	468.729
(1903 adjusted value=469.061.)	
Orleans Road, about 0.8 mile east of, opposite milepost "Baltimore 138 miles;" section of rail set vertically in ground (B. & O. bench mark 113). (1903 adjusted value=488.186.)	487.850
Orleans Road, about 0.3 mile south of, opposite milepost "Baltimore 139 miles;" section of rail set vertically in ground (B. & O. bench mark 114). (1903 adjusted value=504.613.)	504.277
Rockwells Run, near, 500 feet beyond milepost "Baltimore 140 miles;" in rock on south side of tracks; copper bolt (B. & O. bench mark 115)...	523.004
(1903 adjusted value=523.343.)	
Doe Gully, opposite milepost "Baltimore 141 miles;" section of rail set vertically in ground (B. & O. bench mark 116).....	546.652
(1903 adjusted value=546.995.)	
Doe Gully, about 1 mile south of, opposite milepost "Baltimore 142 miles;" section of rail set vertically in ground (B. & O. bench mark 117).....	544.057
(1903 adjusted value=544.404.)	
Hansrotte, 1 mile northeast of, directly opposite milepost "Baltimore 143 miles;" in rock on south side of tracks; copper bolt (B. & O. bench mark 118).....	520.465
(1903 adjusted value=520.815.)	



Hansrotte, near, opposite milepost "Baltimore 144 miles;" section of rail set vertically in ground (B. & O. bench mark 119).....	Feet. 494. 218
(1903 adjusted value=494.572.)	
Hansrotte, about 1 mile west of, opposite milepost "Baltimore 145 miles;" section of rail set vertically in ground (B. & O. bench mark 120).....	497. 886
(1903 adjusted value=498.242.)	
Baird, near, opposite milepost "Baltimore 146 miles;" section of rail set vertically in ground (B. & O. bench mark 121).....	497. 643
(1903 adjusted value=498.003.)	
Baird, about 1 mile southwest of, opposite milepost "Baltimore 147 miles;" section of rail set vertically in ground (B. & O. bench mark 122).....	489. 894
(1903 adjusted value=490.256.)	
Magnolia, about 1 mile northwest of, opposite milepost "Baltimore 148 miles;" section of rail set vertically in ground (B. & O. bench mark 123).....	494. 074
(1903 adjusted value=494.440.)	
Magnolia, about 0.2 mile east of, 500 feet beyond milepost "Baltimore 149 miles;" on south side of tracks in east end of coping of bridge 47 D; copper bolt (B. & O. bench mark 124).....	497. 630
(1903 adjusted value=498. 004.)	
Magnolia, about 1 mile southeast of, opposite milepost "Baltimore 150 miles;" section of rail set vertically in ground (B. & O. bench mark 125).....	502. 076
(1903 adjusted value=502.447.)	
Magnolia, about 2 miles south of, opposite milepost "Baltimore 151 miles;" copper bolt in rock (B. & O. bench mark 126).....	511. 521
(1903 adjusted value=511.896.)	
Pawpaw, about 1 mile north of, opposite milepost "Baltimore 152 miles;" in a rock on south side of tracks; copper bolt (B. & O. bench mark 127).....	516. 226
(1903 adjusted value=516.603.)	
Pawpaw, about 0.8 mile north of, opposite milepost "Baltimore 153 miles;" section of rail set vertically in ground (B. & O. bench mark 128).....	526. 652
(1903 adjusted value=527.034.)	
Pawpaw, about 0.2 mile south of, opposite milepost "Baltimore 154 miles;" section of rail set vertically in ground (B. & O. bench mark 129).....	534. 067
(1903 adjusted value=534.454.)	
Pawpaw, 1.5 miles south of, opposite milepost "Baltimore 155 miles;" section of rail set vertically in ground (B. & O. bench mark 130).....	532. 072
(1903 adjusted value=532.459.)	
Little Cacapon, about 1 mile east of, about 500 feet east of milepost "Baltimore 156 miles;" on south side of tracks in middle stone of coping of culvert; copper bolt (B. & O. bench mark 131).....	528. 851
(1903 adjusted value=529.243.)	

## FLINTSTONE QUADRANGLE.

[Latitude 39° 30'-39° 45'; longitude 78° 30'-78° 45'.]

From Little Cacapon west along Baltimore &amp; Ohio R. R. to Patterson Creek.

Little Cacapon, near, about 600 feet east of milepost "Baltimore 157 miles;" between tracks in bridge seat of west abutment of bridge 59; copper bolt (B. & O. bench mark 132).....	528. 057
(1903 adjusted value=528.449.)	
Okonoko, about 0.8 mile east of, opposite milepost "Baltimore 158 miles;" section of rail set vertically in ground (B. & O. bench mark 133).....	534. 477
(1903 adjusted value=534.876.)	



Okonoko, about 0.2 mile west of, about 800 feet east of milepost "Baltimore 159 miles;" copper bolt in north end of west abutment of bridge 60 (B. & O. bench mark 134).....	Feet. 538. 368
(1903 adjusted value=538.769.)	
Okonoko, about 1.2 miles southwest of, opposite milepost "Baltimore 160 miles;" section of rail set vertically in ground (B. & O. bench mark 135).....	537. 082
(1903 adjusted value=537.486.)	
French, about 0.4 mile east of, opposite milepost "Baltimore 161 miles;" section of rail set vertically in ground (B. & O. bench mark 136).....	540. 786
(1903 adjusted value=541.194.)	
French, about 0.8 mile west of, between tracks; copper bolt in a bridge seat of the east abutment of bridge 61 A (B. & O. bench mark 137).....	554. 005
(1903 adjusted value=554.416.)	
French, about 1.8 miles west of, near west end of a cut near where milepost "Baltimore 163 miles" would be if planted, in rock on south side of tracks; copper bolt (B. & O. bench mark 138).....	556. 219
(1903 adjusted value=556.634.)	
Green Spring, near, at milepost "Baltimore 164 miles," on south side of tracks in center of coping of culvert 62; copper bolt (B. & O. bench mark 139).....	551. 935
(1903 adjusted value=552.351.)	
Green Spring, about 1 mile west of, opposite milepost "Baltimore 165 miles;" section of rail set vertically in ground (B. & O. bench mark 140).....	559. 238
(1903 adjusted value=559.656.)	
Green Spring, about 2 miles west of, opposite milepost "Baltimore 166 miles;" section of rail set vertically in ground (B. & O. bench mark 141).....	562. 076
(1903 adjusted value=562.497.)	
Green Spring, about 3 miles west of, opposite milepost "Baltimore 167 miles;" section of rail set vertically in ground (B. & O. bench mark 142).....	559. 677
(1903 adjusted value=560.101.)	
Dans Run, opposite milepost "Baltimore 168 miles;" section of rail set vertically in ground (B. & O. bench mark 143).....	564. 851
(1903 adjusted value=565.281.)	
Dans Run, about 1 mile west of, opposite milepost "Baltimore 169 miles;" section of rail set vertically in ground (B. & O. bench mark 144).....	565. 878
(1903 adjusted value=566.310.)	
Patterson Creek Cut-Off, about 0.5 mile east of bridge, opposite milepost "Baltimore 170 miles;" section of rail set vertically in ground (B. & O. bench mark 145).....	567. 574
(1903 adjusted value=568.009.)	
Patterson Creek Cut-Off, south end of west abutment of railroad bridge over Patterson Creek (U. S. G. S. bench mark, 574 Patterson Creek).....	573. 805
(1903 adjusted value=574.242.)	
Patterson Creek Cut-Off, between tracks, in a bridge seat of the east abutment of bridge 63; copper bolt (B. & O. bench mark 145 A).....	568. 936
(1903 adjusted value=569.372.)	
Patterson Creek, about 0.3 mile northwest of, opposite milepost "Baltimore 171 miles;" section of rail set vertically in ground (B. & O. bench mark 146).....	575. 163
(1903 adjusted value=575.601.)	



**KEYSER QUADRANGLE.**

[Latitude 39° 15'–39° 30'; longitude 78° 45'–79°.]

**Along Baltimore & Ohio R. R. near Keyser.**

Keyser, near, opposite telegraph pole 201/8 set between tracks in south abutment of bridge; copper bolt (B. & O. bench mark 22).....	Feet. 800. 700
Keyser, near center of Keyser yards, opposite milepost 202; section of rail set vertically in ground (B. & O. bench mark 23).....	827. 000
Keyser, at northwest end of Keyser yards, opposite milepost 203; section of rail set vertically in ground (B. & O. bench mark 24).....	837. 597
Keyser, near, opposite milepost 204; section of rail set vertically between tracks (B. & O. bench mark 25).....	854. 578

**ELK GARDEN QUADRANGLE.**

[Latitude 39° 15'–39° 30'; longitude 79°–79° 15'.]

**Along Baltimore & Ohio R. R. near Piedmont.**

Piedmont, near, in bridge seat of abutment at telegraph pole 204/30; copper bolt (B. & O. bench mark 26).....	871. 281
Piedmont, near, at telegraph pole 205/21, in abutment of bridge; copper bolt (B. & O. bench mark 26 A).....	889. 273
Piedmont, 0.5 mile southeast of, opposite milepost 206; section of rail set vertically between tracks (B. & O. bench mark 27).....	906. 084
Piedmont, 0.5 mile southwest of, opposite milepost 207; section of rail set vertically in ground between tracks (B. & O. bench mark 28).....	932. 915
West Virginia Central Junction, 400 feet west of, in southwest end of bridge seat northwest abutment of bridge for siding over Potomac River; copper bolt (B. & O. bench mark 28 A).....	948. 302

**KINGWOOD QUADRANGLE.**

[Latitude 39° 15'–39° 30'; longitude 79° 30'–79° 45'.]

**From Corinth west along Baltimore & Ohio R. R. to Rowlesburg.**

Corinth, 0.2 mile northwest of, in bridge at telegraph pole 238/20, copper bolt (B. & O. bench mark 59 A).....	2, 434. 838
Rinard, near, opposite milepost 239; section of rail set vertically in ground between tracks (B. & O. bench mark 60).....	2, 452. 554
Riggs, 0.5 mile east of, 250 feet west of milepost 240, on arch culvert; copper bolt (B. & O. bench mark 61).....	2, 481. 524
Terra Alta, 1 mile southeast of, opposite milepost 241; section of rail set vertically in ground between tracks (B. & O. bench mark 62).....	2, 524. 106
Terra Alta, 500 feet east of station, opposite milepost 242; section of rail set vertically in ground between tracks (B. & O. bench mark 63).....	2, 545. 238
Terra Alta, 0.8 mile northwest of, in small bridge, at telegraph pole 242/35; copper bolt (B. & O. bench mark 64).....	2, 512. 748
Terra Alta, 1.5 miles west of, in foundation of south side of east portal of tunnel; copper bolt (B. & O. bench mark 65).....	2, 395. 471
Terra Alta, 3 miles southwest of, opposite milepost 245; section of rail set vertically in ground between tracks (B. & O. bench mark 66).....	2, 263. 207
Terra Alta, 4 miles southwest of, opposite milepost 246; section of rail set vertically in ground between tracks (B. & O. bench mark 67).....	2, 146. 948
Rodamers, 1 mile southwest of, telegraph pole 246/26, south side of west portal of Rodamers tunnel, in foundation; copper bolt (B. & O. bench mark 68).....	2, 091. 206



Amblersburg, 2.5 miles northeast of, opposite milepost 248; section of rail set vertically in ground between tracks (B. & O. bench mark 69).....	Feet. 1, 928. 323
Amblersburg, 1.5 miles northeast of, opposite milepost 249; section of rail set vertically in ground between tracks (B. & O. bench mark 70).....	1, 811. 555
Amblersburg, 0.5 mile northeast of, opposite milepost 250; section of rail set vertically in ground between tracks (B. & O. bench mark 71).....	1, 697. 546
Amblersburg, telegraph pole 250/27, in bridge; copper bolt (B. & O. bench mark 72).....	1, 623. 625
Amblersburg, about 1 mile southwest of, west of tracks, at telegraph pole 251/30, 15 feet from north end of retaining wall; copper bolt (B. & O. bench mark 73).....	1, 516. 342
Rowlesburg, 1.8 miles northeast of, in bridge 91 at telegraph pole 252/17½; copper bolt (B. & O. bench mark 74).....	1, 473. 166
Rowlesburg, 1.2 miles northeast of, opposite milepost 253; section of rail set vertically in ground between tracks (B. & O. bench mark 74A).....	1, 450. 371
Rowlesburg, near, north of tracks, in mud wall of east abutment of Cheat River bridge; copper bolt (B. & O. bench mark 75).....	1, 400. 857
Rowlesburg, 1 mile west of, 40 feet east of telegraph pole 255/14; copper bolt set in rock (B. & O. bench mark 76).....	1, 490. 643
Rowlesburg, 1.5 miles west of, telegraph pole 255/25, in center of capstone, north end of long retaining wall east of tracks; copper bolt (B. & O. bench mark 76A).....	1, 528. 744
Rowlesburg, 2 miles northwest of, copper bolt set in east wing wall of north abutment of viaduct at telegraph pole 256/5 (B. & O. bench mark 77).....	1, 581. 092

**From point near Rowlesburg along Baltimore & Ohio R. R. to point 3.2 miles west of Rowlesburg.**

Rowlesburg, 4 miles east of, on coping stone of abutment, at northwest corner of Baltimore & Ohio R. R. bridge over Salt Lick Creek; chiseled square (C. & G. S. bench mark L)..... (1903 adjusted value=1,624.164.)	1, 623. 665
Rowlesburg, at base of center pillar at west end of Baltimore & Ohio R. R. bridge over Cheat River; chiseled square, marked "B.M." (C. & G. S. bench mark XXVIII)..... (1903 adjusted value=1,400.839.)	1, 400. 332
Rowlesburg, 3.2 miles west of, on top of "Buckhorn Wall," about 131 feet from its eastern end; chiseled square, marked "B.M." (C. & G. S. bench mark XXIX)..... (1903 adjusted value=1,717.467.)	1, 716. 955

**FAIRMONT QUADRANGLE.**

[Latitude 39° 15'-39° 30'; longitude 80°-80° 15'.]

**From Grafton west along Baltimore & Ohio R. R. to Bridgeport.**

Grafton, on top of north side of central pier of Baltimore & Ohio R. R. bridge over Taggart's Valley Creek, a branch of the Monongahela River; chiseled square (C. & G. S. bench mark M)..... (1903 adjusted value=996.856.)	996. 304
Grafton, about 5.5 miles west of, on corner stone of east end of trestle 2½; chiseled square, marked "B.M." (C. & G. S. bench mark XXXI)..... (1903 adjusted value=1,082.623.)	1, 082. 088
Bridgeport, on corner stone of west abutment of Baltimore & Ohio R. R. bridge; chiseled square, marked "B.M." (C. & G. S. bench mark XXXII)..... (1903 adjusted value=979.626.)	979. 135



## From Grafton northwest along Baltimore &amp; Ohio R. R. to Fairmont.

	Feet.
Grafton, on Parkersburg branch, in north end of bridge seat of east abutment of bridge over Tygart River; copper bolt (B. & O. bench mark 102).	995.050
Grafton, 1 mile west of, near milepost 281; section of rail set vertically in ground between tracks (B. & O. bench mark 103).....	991.793
Fetterman, in bridge 102; copper bolt (B. & O. bench mark 103 A).....	982.619
Fetterman, 0.5 mile north of, in northwest end of northeast wing wall, northwest abutment of bridge 103; copper bolt (B. & O. bench mark 104).	988.797
Fetterman, 1.2 miles northwest of, at milepost 283; section of rail set vertically in ground between tracks (B. & O. bench mark 105).....	989.900
Fetterman, 1.8 miles northwest of, on culvert at telegraph pole 283/20; copper bolt (B. & O. bench mark 105 A).....	982.196
Fetterman, 2.5 miles north of, on culvert at telegraph pole 284/11; copper bolt (B. & O. bench mark 106).....	980.644
Bush, about 3 miles southeast of Valley Falls, bridge seat at northeast corner of girder bridge 104, 7 feet east of center of track, 4 feet below top of outer rail of curve; bronze tablet stamped "986 Pittsburg 1899" (B. & O. bench mark 107; U. S. G. S. bench mark).....	985.048
Bush, near, on bridge at telegraph pole 285/28; copper bolt (B. & O. bench mark 107 A).....	979.827
Bush, 0.5 mile northwest of, on culvert at telegraph pole 286/10; copper bolt (B. & O. bench mark 108).....	981.901
Valley Falls, about 1 mile east of, at milepost 287; section of rail set vertically in ground between tracks (B. & O. bench mark 109).....	982.911
Valley Falls, 50 feet west of milepost 288 in native rock north of track; copper bolt (B. & O. bench mark 110).....	974.152
Valley Falls, 1 mile northwest of, near milepost 289 in northwest end of southwest coping of arch bridge 105; copper bolt (B. & O. bench mark 111).....	944.936
Hammond, 0.2 mile northwest of, on arch bridge 107; copper bolt (B. & O. bench mark 112).....	937.852
Hammond, 1 mile west of, at telegraph pole 290/20; rail section set northwest of tracks (B. & O. bench mark 113).....	914.434
Powells, 0.5 mile northwest of, on bridge 108, at telegraph pole 291/28; copper bolt (B. & O. bench mark 114).....	898.423
Powells, 1.5 miles northwest of, 35 feet west of telegraph pole 292/14, in native rock; copper bolt (B. & O. bench mark 115).....	898.886
Colfax, 1.2 miles southeast of, on arch culvert at telegraph pole 293/11; copper bolt (B. & O. bench mark 116).....	889.444
Colfax, in center of north capstone of west coping of bridge 109; copper bolt (B. & O. bench mark 117).....	888.515
Colfax, 1 mile northwest of, near southwest end of northwest coping of arch culvert at telegraph pole 295/17, copper bolt (B. & O. bench mark 118).....	885.389
Bentons Ferry, 1 mile east of, in arch culvert at telegraph pole 296/20; copper bolt (B. & O. bench mark 119).....	887.131
Bentons Ferry, at telegraph pole 297/22, in north end of east wing wall of north abutment of bridge 111; copper bolt (B. & O. bench mark 120)...	888.355
Bentons Ferry, 160 feet west of signboard, bridge seat at southeast corner of small girder bridge 111, 4.5 feet below top of rail, 18.5 feet south of center of track; bronze tablet stamped "885 Pittsburg 1899" (U. S. G. S. bench mark).....	884.546
Kingmont, north of tracks at telegraph pole 298/20; rail section (B. & O. bench mark 121).....	888.302



Kingmont, 1 mile northeast of, on large arch culvert at telegraph pole 299/21; copper bolt (B. & O. bench mark 122).....	Feet. 881. 560
Kingmont, 1.5 miles northeast of, on arch culvert at telegraph pole 299/37; copper bolt (B. & O. bench mark 122 A).....	881. 334
Gaston Junction, in west end of bridge seat, north abutment of bridge 112 over Monongahela River; copper bolt (B. & O. bench mark 123).....	885. 248
Fairmont, between tracks, in southwest end of pier for overhead highway bridge; copper bolt (B. & O. bench mark 124).....	886. 622
Fairmont, 1 mile west of, in northwest end of bridge seat, southwest abutment of Fairmont, Morgantown & Pittsburg Bridge over Monongahela River; copper bolt (B. & O. bench mark 125).....	884. 231
Fairmont, near, in south end of bridge seat of east abutment of bridge to Fairmont roundhouse; copper bolt (B. & O. bench mark 125 A).....	868. 666

#### THORNTON QUADRANGLE.

[Latitude 39° 15'–39° 30'; longitude 79° 45'–80°.]

##### Bench mark near Grafton.

Grafton, about 2 miles east of, on corner stone of abutment of small bridge; chiseled square (B. & O. and C. & G. S. bench mark XXX).....	1,023. 476
(1903 adjusted value=1,024.024.)	

##### From Austen west along Baltimore & Ohio R. R. to Grafton.

Rowlesburg, 3 miles west of, at telegraph pole 257/9; copper bolt set in rock (B. & O. bench mark 78).....	1, 695. 876
Buckhorn, 0.2 mile northwest of, 40 feet southeast of telegraph pole 257/20, in northwest end of retaining wall, northeast of tracks; copper bolt (B. & O. bench mark 78 A).....	1, 724. 880
Buckhorn, 1 mile northwest of, 40 feet northwest of telegraph pole 258/7; copper bolt set in rock (B. & O. bench mark 79).....	1, 799. 779
Anderson, about 0.2 mile west of, at milepost "Baltimore 259;" section of rail set vertically in ground between tracks (B. & O. bench mark 80)....	1, 857. 240
Tunnelton, 0.8 mile southeast of, at milepost "Baltimore 260;" section of rail set vertically in ground between tracks (B. & O. bench mark 81)....	1, 828. 379
Tunnelton, about 0.2 mile west of, in first step of retaining wall north of tracks, at east portal of Kingwood tunnel; copper bolt (B. & O. bench mark 82).....	1, 826. 433
Tunnelton, about 1 mile west of, at west end of Kingwood tunnel; section of rail set vertically in ground between tracks (B. & O. bench mark 83)....	1, 783. 651
West End, 300 feet west of, in abutment of bridge; copper bolt (B. & O. bench mark 83 A).....	1, 742. 710
Austen, about 1 mile east of, 40 feet south of tracks, near telegraph pole 263/12; copper bolt set in rock (B. & O. bench mark 84).....	1, 627. 887
Austen, 0.2 mile east of, 50 feet west of Murray tunnel; copper bolt set in rock (B. & O. bench mark 85).....	1, 552. 694
Austen, 0.8 mile west of, at milepost 265; section of rail set vertically in ground between tracks (B. & O. bench mark 86).....	1, 443. 864
Newburg, near, at milepost 266; section of rail set vertically in ground between tracks (B. & O. bench mark 87).....	1, 338. 505
Newburg, near, in seat of bridge 95; copper bolt (B. & O. bench mark 88)...	1, 244. 992
Independence, 1 mile southwest of, at milepost 269; section of rail set vertically in ground between tracks (B. & O. bench mark 90).....	1, 147. 327
Hardman, near, in seat of bridge 97; copper bolt (B. & O. bench mark 91)...	1, 108. 151



Ironton, 1 mile northeast of, nearly opposite milepost 271, in large rock about 100 feet southeast of tracks; copper bolt (B. & O. bench mark 92).	Feet. 1, 101. 464
Ironton, near, at telegraph pole 271/37; copper bolt in rock 50 feet southeast of tracks (B. & O. bench mark 93).....	1, 074. 794
Ironton, 0.8 mile southwest of, in abutment of pipe culvert at telegraph pole 272/26; copper bolt (B. & O. bench mark 94).....	1, 064. 447
Thornton, 1 mile northeast of, at telegraph pole 273/25; section of rail set vertically in ground between tracks (B. & O. railroad bench mark 95)....	1, 051. 731
Thornton, in abutment of bridge 99; copper bolt (B. & O. bench mark 96).	1, 040. 165
Thornton, 0.8 mile southwest of, opposite telegraph pole 275/15; section of rail set vertically in ground between tracks (B. & O. bench mark 97)....	1, 039. 660
Thornton, 1.6 miles west of, in southwest end of bridge seat of southeast abutment of bridge at telegraph pole 276/8; copper bolt (B. & O. bench mark 98).....	1, 034. 079
Thornton, 2.5 miles west of, nearly opposite telegraph pole 277/5; copper bolt set in rock (B. & O. bench mark 99).....	1, 034. 125
Grafton, about 2 miles east of, east abutment of bridge 100, set between tracks in bridge seat; copper bolt (B. & O. bench mark 100).....	1, 021. 294
Grafton, 1.2 miles east of, at milepost 279; section of rail set vertically in ground between tracks (B. & O. bench mark 101).....	1, 007. 140

**WEST UNION QUADRANGLE.**

[Latitude 39° 15'–39° 30'; longitude 80° 45'–81°.]

**From Bridgeport along Baltimore & Ohio R. R. to point 10 miles west of West Union.**

West Union, about 2 miles east of, on top of pier at west end of Baltimore & Ohio R. R. bridge 21, over Middle Island Creek; chiseled square marked "B. M." (C. & G. S. bench mark XXXIII).....	799. 795
(1903 adjusted value=800.186.)	
West Union, about 0.2 mile east of, on top of southwest corner of pier of Baltimore & Ohio R. R. bridge 23, over Middle Island Creek; chiseled square, marked "U. S. C. & G. S." (C. & G. S. bench mark N).....	804. 480
1903 adjusted value=804.862.)	
West Union, about 10 miles west of, on southeast corner stone of pier of Baltimore & Ohio R. R. bridge 26; chiseled square, marked "B. M." (C. & G. S. bench mark XXXIV).....	802. 469
(1903 adjusted value=802.817.)	

**HARRISVILLE QUADRANGLE.**

[Latitude 39°–39° 15'; longitude 81°–81° 15'.]

**From Cornwall east along Baltimore & Ohio R. R. to point near Cairo.**

Cornwall station, about 0.2 mile east of, on coping stone of the east abutment of Baltimore & Ohio R. R. bridge 31, over Bonds Creek; chiseled square, marked "B. M." (C. & G. S. bench mark XXXV).....	693. 562
(1903 adjusted value=693.866.)	
Cairo, 1 mile east of, on east abutment of Baltimore & Ohio R. R. bridge 35, over Bonds Creek; chiseled square, marked "B. M." (C. & G. S. bench mark XXXVI).....	685. 655
(1903 adjusted value=685.954.)	



**ELIZABETH QUADRANGLE.**

[Latitude 39°-39° 15'; longitude 81° 15'-81° 30'.]

**Near Petroleum.**

Petroleum, about 655 feet east of, on west abutment of Baltimore & Ohio R. R. bridge over Goose Creek; chiseled square, marked "B. M." (C. & G. S. bench mark XXXVII).....	Feet. 696. 662
(1903 adjusted value=696.933.)	
Petroleum, about 1 mile west of, on northeast corner stone of abutment of Baltimore & Ohio R. R. bridge 44; chiseled square, marked "B. M." (C. & G. S. bench mark XXXVIII).....	692. 905
(1903 adjusted value=693.171.)	

**PARKERSBURG QUADRANGLE.**

[Latitude 39° 15'-39° 30'; longitude 81° 30'-81° 45'.]

**Near Parkersburg.**

Parkersburg, 2 miles east of, on foundation at northwest corner of Baltimore & Ohio R. R. bridge 52; square cut (C. & G. S. bench mark XXXIX) (1903 adjusted value=607.454.)	607. 256
Parkersburg, on water table, south front, near western corner of courthouse; chiseled square, marked "U. S. C. & G. S. B. M.".....	615. 612
(1903 adjusted value, C. & G. S. bench mark O=615.800.)	

**BLACKSVILLE QUADRANGLE.**

[Latitude 39° 30'-39° 45'; longitude 80°-80° 15'.]

**From Barnesville west along Baltimore & Ohio R. R. to Underwood.**

Barnesville, 0.5 mile east of, in south end of small culvert at telegraph pole 304/5; copper bolt (B. & O. bench mark 126).....	873. 545
Barnesville, 0.5 mile northwest of, copper bolt set in stone pier east of tracks at Fairmont Coal Co. shaft mine (B. & O. bench mark 127).....	878. 391
Barrackville, 1.5 miles east of, at telegraph pole 305/30; rail section set southeast of track (B. & O. bench mark 128).....	887. 439
Barrackville, 0.8 mile southeast of, close to north truss of bridge at telegraph pole 306/24, in bridge seat, west abutment; copper bolt (B. & O. bench mark 129).....	893. 945
Barrackville, at station, in south end of bridge seat, west abutment of bridge 115; copper bolt (B. & O. bench mark 130).....	901. 475
Barrackville, 1 mile southwest of, on bridge seat of abutment of bridge at telegraph pole 308/18; copper bolt (B. & O. bench mark 131).....	909. 237
Barrackville, 1.8 miles west of, in abutment of pipe at telegraph pole 309/10; copper bolt (B. & O. bench mark 132).....	913. 368
Katy, near, just northeast of tracks, in bridge seat, northwest abutment, at telegraph pole 310/22; copper bolt (B. & O. bench mark 133).....	919. 178
Underwood, (Farmington) 1.8 miles east of, in abutment on bridge 116 at telegraph pole 311/5; copper bolt (B. & O. bench mark 134).....	922. 462
Underwood (Farmington), 0.8 mile east of, at milepost 312; rail section set on southwest side of tracks (B. & O. bench mark 135).....	931. 766

**MANNINGTON QUADRANGLE.**

[Latitude 39° 30'-39° 45'; longitude 80° 15'-80° 30'.]

**From Underwood northwest along Baltimore & Ohio R. R. to Hundred.**

Underwood (Farmington), in abutment of bridge 116½; copper bolt (B. & O. bench mark 131).....	934. 562
Underwood (Farmington), 0.6 mile west of, in abutment of bridge 116½, at telegraph pole 313/15; copper bolt (B. & O. bench mark 137).....	937. 232



Underwood (Farmington), 1.5 miles west of, in southeast end of northeast abutment of small bridge at telegraph pole 314/9; copper bolt (B. & O. bench mark 138).....	Feet. 940. 336
Downs (Bloomfield), 1.2 miles southeast of, in bridge seat of abutment of bridge 117, at telegraph pole 315/12; copper bolt (B. & O. bench mark 139).....	948. 158
Downs (Bloomfield), 1 mile southeast of, in bridge seat of abutment of bridge 118, telegraph pole 315/23; copper bolt (B. & O. bench mark 139A).....	953. 072
Downs (Bloomfield), 1 mile southeast of, 2.8 miles west of Farmington; chiseled square on abutment of bridge, marked "953" (U. S. G. S. bench mark).....	953. 095
Downs (Bloomfield), near station; copper bolt set in bridge seat of abutment of bridge 118½ (B. & O. bench mark 140).....	962. 196
Downs (Bloomfield), 0.8 mile west of, in bridge seat of abutment of bridge at telegraph pole 317/11; copper bolt (B. & O. bench mark 141).....	962. 964
Mannington, 1.8 miles southeast of, in east end of bridge seat, north abutment of highway bridge near milepost 318; copper bolt (B. & O. bench mark 142).....	968. 719
Mannington, 0.8 mile southeast of, in bridge seat of abutment of bridge at telegraph pole 319/9; copper bolt (B. & O. bench mark 143).....	969. 952
Mannington, northeast corner of front step of Exchange Bank (B. & O. bench mark 144).....	974. 486
Mannington, in pillar north of door of Exchange Bank; bronze tablet stamped "975 Grafton 1902" (U. S. G. S. bench mark).....	974. 946
Mannington, 1 mile north of, in bridge seat of abutment of bridge 119; copper bolt (B. & O. bench mark 145).....	974. 870
Mannington, 1.5 miles northwest of, near telegraph pole 321/23, in bridge seat of abutment of bridge 120; copper bolt (B. & O. bench mark 146).....	981. 868
Mannington, 2.2 miles northwest of, in bridge seat of abutment of bridge 121; copper bolt (B. & O. bench mark 147).....	989. 512
Mannington, 2.8 miles northwest of, between track and east truss, in bridge seat north abutment bridge 123; copper bolt (B. & O. bench mark 148).....	991. 176
Metz, 0.8 mile south of, at telegraph pole 323/30; rail section set east of tracks (B. & O. bench mark 149).....	999. 798
Metz, 0.2 mile north of, in abutment of bridge at telegraph pole 324/25; copper bolt (B. & O. bench mark 150).....	1, 003. 354
Metz, 1.5 miles northwest of, set in abutment of bridge at milepost 326; copper bolt (B. & O. bench mark 151).....	1, 017. 872
Glover Gap, 0.2 mile southeast of, at milepost 327; rail section set south of tracks (B. & O. bench mark 152).....	1, 035. 146
Glover Gap, 0.8 mile northwest of, at milepost 328; rail section set south of tracks (B. & O. bench mark 153).....	1, 057. 741
Glover Gap, 1.2 miles northwest of, in north corner of small culvert at telegraph pole 328/24; copper bolt (B. & O. bench mark 153 A).....	1, 084. 368
Glover Gap, 2 miles northwest of, in abutment of bridge at telegraph pole 329/10; copper bolt (B. & O. bench mark 154).....	1, 118. 945
Cottontown, 0.8 mile south of, 0.5 mile north of Burton tunnel, in large arch bridge 126; copper bolt (B. & O. bench mark 155).....	1, 126. 340
Cottontown, in abutment of bridge near telegraph pole 331/5; copper bolt (B. & O. bench mark 156).....	1, 090. 687
Burton, between main track and eastbound siding, in bridge seat, northwest abutment of bridge, at telegraph pole 331/27; copper bolt (B. & O. bench mark 157).....	1, 065. 300





Burton, 0.9 mile northwest of, in west wing of south end stone face for pipe culvert at telegraph pole 332/23; copper bolt (B. & O. bench mark 158) ..	1, 039. 158
Hundred, 0.8 mile southeast of, in northwest end of southwest coping of box culvert at telegraph pole 333/5; copper bolt (B. & O. bench mark 159) .....	1, 030. 142
Hundred, just west of, in northeast end of northwest bridge seat of bridge 128; bronze tablet stamped "1013 Grafton 1902" (U. S. G. S. bench mark, B. & O. bench mark 160) .....	1, 012. 895
Hundred, 1.2 miles northwest of, in north end of west bridge seat of bridge at telegraph pole 335/7; copper bolt (B. & O. bench mark 161) ..	995. 523
Hundred, 1.8 miles northwest of, at telegraph pole 335/23, in abutment of bridge 130; copper bolt (B. & O. bench mark 161 A) .....	986. 173

**LITTLETON QUADRANGLE.**

[Latitude 39° 30' - 39° 45'; longitude 80° 30' - 80° 45'.]

**From Littleton northwest along Baltimore & Ohio R. R. to Bellton.**

Littleton, 1.8 miles east of, set in abutment of bridge 131, at telegraph pole 336/21; copper bolt (B. & O. bench mark 162) .....	969. 266
Littleton, 0.8 mile east of, telegraph pole 337/3, in abutment of bridge 133; copper bolt (B. & O. bench mark 163) .....	950. 487
Littleton, 0.5 mile east of, in abutment of bridge 135; copper bolt (B. & O. bench mark 163 A) .....	944. 568
Littleton, between main track and siding at milepost 338; rail section (B. & O. bench mark 164) .....	941. 317
Littleton, 0.8 mile northwest of, south of track at milepost 339; rail section (B. & O. bench mark 165) .....	1, 016. 195
Board tree, 0.8 mile south of; center line pin at south end of Board tree tunnel (B. & O. bench mark 166) .....	1, 108. 866
Board tree, 0.2 mile south of, in rock projecting from under west end of first course of retaining wall at north end of Board Tree tunnel, east of track; copper bolt (B. & O. bench mark 167) .....	1, 083. 905
Board tree, 0.5 mile northwest of, at telegraph pole 341/30; rail section set north of tracks (B. & O. bench mark 168) .....	1, 012. 275
Bellton, 1.4 miles southeast of, north of tracks at telegraph pole 343/4; rail section (B. & O. bench mark 169) .....	933. 187
Bellton, 0.5 mile south of, between main track and siding at milepost 344; rail section (B. & O. bench mark 170) .....	897. 538

**CAMERON QUADRANGLE.**

[Latitude 39° 45' - 40°; longitude 80° 30' - 80° 45'.]

**From Denver northwest along Baltimore & Ohio R. R. to Moundsville.**

Denver station (Bellton), near, in west abutment of bridge 136; in face of back wall, aluminum tablet stamped "888" .....	888. 490
Denver station, 0.8 mile north of Bellton, just south of present track, in bridge seat of east abutment of bridge 137; copper bolt (B. & O. bench mark 171) .....	910. 868
Woodruff, 0.1 mile south of, east of tracks at milepost 346; rail section (B. & O. bench mark 172) .....	946. 852
Woodruff, 0.9 mile north of, east of track at milepost 347; rail section (B. & O. bench mark 173) .....	1, 011. 740
Cogley, 0.5 mile south of, between main track and siding at milepost 348; rail section (B. & O. bench mark 174) .....	1, 087. 426



	Feet.
Cogley, 0.5 mile north of, east of tracks at milepost 349; rail section (B. & O. bench mark 175).....	1, 168. 141
Cameron, 2 miles southeast of, east of tracks at north end of Welling tunnel; rail section (B. & O. bench mark 176).....	1, 199. 223
Cameron, 1 mile east of, set north of tracks at telegraph pole 350/30; rail section (B. & O. bench mark 177).....	1, 125. 450
Cameron, 0.2 mile east of, in south end of south wing wall, west abutment of bridge 138; copper bolt (B. & O. bench mark 178).....	1, 062. 823
Cameron, 1 mile west of, between main track and siding at telegraph pole 352/30; rail section (B. & O. bench mark 179).....	1, 034. 959
Loudenville, set in northeast end of northwest bridge seat of bridge 139; copper bolt (B. & O. bench mark 180).....	995. 772
Loudenville, 0.8 mile west of, in north end of west bridge seat of bridge at telegraph pole 354/27; copper bolt (B. & O. bench mark 181).....	986. 427
Glen Easton, 1.1 miles east of, in culvert at telegraph pole 355/10; copper bolt (B. & O. bench mark 182).....	977. 934
Glen Easton, 0.2 mile east of, in south end of bridge seat of west abutment of bridge 141; copper bolt (B. & O. bench mark 183).....	964. 700
Glen Easton, 0.8 mile northwest of, in northeast end of northwest bridge seat of bridge at telegraph pole 357/12; copper bolt (B. & O. bench mark 184).....	926. 534
Glen Easton, 1.1 miles northwest of, on abutment of bridge at telegraph pole 357/27; copper bolt (B. & O. bench mark 184 A).....	927. 091
Glen Easton, 2.1 miles northwest of, in south end of west bridge seat of bridge 143, at telegraph pole 358/26; copper bolt (B. & O. bench mark 185).....	902. 383
Rosbys Rock, 2.5 miles east of, in south capstone of west abutment of bridge 145, telegraph pole 359/30; copper bolt (B. & O. bench mark 186).....	861. 845
Rosbys Rock, 2 miles east of, in southeast corner of small culvert just east of Shepherds tunnel; copper bolt (B. & O. bench mark 187).....	847. 610
Rosbys Rock, 1 mile east of, in east end of south bridge seat at telegraph pole 361/9; copper bolt (B. & O. bench mark 188).....	804. 441
Rosbys Rock, 0.5 mile east of, in north end of east bridge seat of bridge at telegraph pole 361/25; copper bolt (B. & O. bench mark 189).....	789. 008
Rosbys Rock, 0.5 mile northwest of, east of track at telegraph pole 362/25; rail section (B. & O. bench mark 190).....	764. 414
Rosbys Rock, 1.5 miles northwest of, northeast of track at telegraph pole 363/25; rail section (B. & O. bench mark 191).....	741. 744
Rosbys Rock, 2.5 miles northwest of, in north end of west wing of north abutment of bridge at telegraph pole 364/25; copper bolt (B. & O. bench mark 192).....	718. 217
Rosbys Rock, 4 miles northwest of, at telegraph pole 365/40, in north end of southeast abutment of bridge 146; square cut (B. & O. bench mark 193; U. S. G. S. bench mark).....	680. 494
Moundsville, 1.5 miles southeast of, west of tracks at telegraph pole 367/4; rail section (B. & O. bench mark 194).....	649. 520
Moundsville, 1 mile southeast of; a square cut in southwest end of northwest abutment of bridge 148 (B. & O. bench mark 195, U. S. G. S. bench mark).....	646. 508



## CLARINGTON QUADRANGLE.

[Latitude 39° 45'-40°; longitude 80° 45'-81°.]

## From Moundsville north along Baltimore &amp; Ohio R. R. to Benwood.

Moundsville, 0.2 mile northwest of, on north pedestal of water tank 54; square cut (B. & O. bench mark 196).....	Feet. 645. 835
Moundsville, 1.4 miles northwest of, southwest of tracks at milepost 370; rail section (B. & O. bench mark 197).....	668. 201
Moundsville, 2.4 miles northwest of, west of tracks at milepost 371; rail section (B. & O. bench mark 198).....	667. 584
Moundsville, 3.5 miles north of, in east end of coping of arch over spring at telegraph pole 371/39; copper bolt (B. & O. bench mark 199).....	669. 392
Benwood Junction, 2 miles south of, between main track and siding at milepost 373; rail section (B. & O. bench mark 200).....	658. 519
Benwood Junction, 1.5 miles south of, in large arch culvert at telegraph pole 373/20; copper bolt (B. & O. bench mark 200 A).....	657. 951
Benwood Junction, 1 mile south of, at milepost 374; section of rail set vertically in ground between tracks (B. & O. bench mark 201).....	665. 537

## WHEELING QUADRANGLE.

[Latitude 40°-40° 15'; longitude 80° 30'-80° 45'.]

## Near Benwood.

Benwood Junction, near, at milepost 375; section of rail set vertically in ground between tracks (B. & O. bench mark 202).....	668. 729
Benwood, near, on west end of north coping at east end of east approach to Ohio River bridge; square cut (B. & O. bench mark 114).....	688. 194
Benwood, 9.5 feet north of southeast angle of pier of Baltimore & Ohio R. R. bridge over Ohio River, about level with Ohio River railroad track; cut on east face of West Virginia shore pier (United States Corps of Engineers bench mark 94 A).....	648. 033



## APPENDIX B.

### SECONDARY ELEVATIONS.

Secondary elevations from records and topographic maps of the United States Geological Survey, including vertical-angle determinations, altitudes of well-known summits, and other useful elevations, are given below. These elevations are approximate only and should not be used for accurate work.

Place.	Quadrangle.	County.	Elevation.
			<i>Feet.</i>
Allen Knob.....	Nicholas.....	Greenbrier.....	3,670
Backbone Mountain triangulation station.....	Parsons.....	Tucker.....	3,661
Bald Knob.....	Huntersville.....	Pocahontas.....	4,242
Bald Knob triangulation station.....	Fairmont.....	Harrison.....	1,552
Bayards Knob.....	Beverly.....	Randolph.....	4,150
Bear Garden Knob.....	Nicholas.....	Greenbrier.....	3,310
Bear Knob triangulation station.....	Weston.....	Upshur.....	1,820
Bear Wallow triangulation station.....	Tazewell.....	McDowell, W. Va. Tazewell, Va.	3,170
Beech Knob triangulation station.....	Nicholas.....	Greenbrier.....	4,144
Bee Knob.....	Huntersville.....	Webster.....	3,280
Belington triangulation station.....	Belington.....	Barbour, Ran- dolph.	3,075
Beverly Mountain.....	Beverly.....	Pendleton.....	4,500
Bicketts Knob.....	Hinton.....	Monroe.....	3,327
Bickle Knob triangulation station.....	Beverly.....	Randolph.....	4,020
Big Sewell Mountain.....	Hinton.....	Fayette.....	3,500
Big Spruce Knob.....	Huntersville.....	Pocahontas.....	4,652
Blue Knob.....	do.....	do.....	4,368
Boggs Knob.....	Hinton.....	Fayette.....	3,600
Briar Patch Mountain.....	Beverly.....	Randolph.....	4,480
Briery Knob triangulation station.....	Huntersville.....	Pocahontas.....	4,534
Buckhorn Knob.....	Peterstown.....	Mercer, W. Va.; Giles, Va.	4,020
Buck Knob.....	do.....	do.....	4,356
Cacapon Mountain (Capon (2), triangulation station.....	Pawpaw.....	Morgan.....	2,196
Chenoweth Knob triangulation station.....	Elkins.....	Randolph.....	3,836
Chestview.....	Morgantown.....	Monongalia.....	2,212
Colaw Knob.....	Beverly.....	Pocahontas.....	4,214
Cottle Knob.....	Nicholas.....	Nicholas.....	3,015
Cunningham Knob.....	Beverly.....	Randolph.....	4,485
Dorsey Knob.....	Morgantown.....	Monongalia.....	1,438
Dougher Knob.....	Hinton.....	Greenbrier.....	2,818
Eli Taylor Knob.....	Gassaway.....	Braxton.....	1,565
Elkins Gap.....	Oceana.....	Wyoming.....	1,944
Erwin triangulation station.....	Fairmont.....	Marion.....	1,448
Flattop Mountain.....	Pocahontas Special.....	Wyoming.....	3,400
Fowler Knob.....	Nicholas.....	Nicholas.....	2,269
Fury Knob.....	do.....	do.....	2,622
Gibson Knob.....	Huntersville.....	Pocahontas.....	4,360
Gregg Knob triangulation station.....	Beverly.....	Randolph.....	4,310
Greenbrier Mountain.....	Lewisburg.....	Greenbrier.....	3,369
Haines Knob.....	Beverly.....	Randolph.....	4,130
Harper Knob.....	Elkins.....	do.....	3,030
Hensley Knob triangulation station.....	Tazewell.....	McDowell.....	2,500
Hickory Knob.....	Lewisburg.....	Alleghany, Va., Greenbrier, W. Va.	3,361
High Knob.....	Beverly.....	Randolph.....	4,710
Hopkins Mountain.....	Lewisburg.....	Greenbrier.....	3,356
Huddleston Knob.....	Milton.....	Cabell.....	1,020
Huff Knob triangulation station.....	Raleigh.....	Mercer, Raleigh.....	3,500
Huttons Knob.....	Beverly.....	Randolph.....	4,260



Place.	Quadrangle.	County.	Elevation. <i>Feet.</i>
Indian triangulation station.....	Tazewell.....	McDowell, Wyoming.	2,500
Ivy Knob triangulation station.....	Raleigh.....	Raleigh, Wyoming	3,593
Joe Knob.....	Nicholas.....	Greenbrier.....	3,997
Job Knob triangulation station.....	do.....	do.....	4,838
Keeney Knob triangulation station.....	Hinton.....	Summers.....	3,945
King Knob (Pullman triangulation station).....	Holbrook.....	Ritchie.....	1,367
King Knob triangulation station.....	Harrisville.....	do.....	1,270
Kite Knob triangulation station.....	Arnoldsburg.....	Calhoun.....	1,269
Knobly Mountain.....	Frostburg.....	Mineral.....	1,940
Lambert triangulation station.....	Pocahontas Special.....	McDowell.....	3,090
Little Beech Knob.....	Nicholas.....	Greenbrier.....	4,143
Locust Knob.....	Huntersville.....	Pocahontas.....	4,392
Mann Knob.....	Midkiff.....	Lincoln.....	1,439
Do.....	Nicholas.....	Greenbrier.....	3,530
Marlin Mountain.....	Huntersville.....	Pocahontas.....	3,198
Mike Knob.....	do.....	Greenbrier.....	4,276
Miller triangulation station.....	Glenville.....	Gilmer.....	1,429
Owls head triangulation station.....	West Union.....	Tyler.....	1,400
Page triangulation station.....	Fayetteville.....	Fayette.....	2,543
Paint triangulation station (Lick Knob).....	Raleigh.....	Fayette, Raleigh.....	3,268
Patton Knob.....	Fairmont.....	Taylor.....	1,666
Payne Knob.....	Huntersville.....	Webster.....	3,126
Peters Mountain.....	Lewisburg.....	Monroe, W. Va., Alleghany, Va.	3,886
Peterstown.....	Dublin.....	Monroe.....	1,745
Pilot Knob triangulation station.....	Pocahontas Special.....	Wyoming, Mercer.....	3,270
Pine Mountain triangulation station.....	Nicholas.....	Nicholas.....	2,584
Piney Mountain triangulation station.....	Milton.....	Cabell.....	1,107
Pinkerton Knob.....	Hancock.....	Berkeley.....	1,777
Pinnacle triangulation station.....	Piedmont.....	Mineral.....	3,327
Pointy Knob.....	do.....	Tucker.....	4,286
Pollock Knob.....	Nicholas.....	Greenbrier.....	3,925
Porter Knob.....	Milton.....	Cabell.....	1,143
Potato Hill.....	Raleigh.....	Fayette, Raleigh.....	3,256
Red Oak Knob.....	Huntersville.....	Webster.....	3,750
Rich Knob.....	Milton.....	Cabell.....	1,047
Do.....	Nicholas.....	Greenbrier.....	3,812
Rich Mountain triangulation station.....	Elkins.....	Randolph.....	3,660
Riggs Knob triangulation station.....	Clarington.....	Marshall.....	1,448
Rock Camp Knob.....	Huntersville.....	Greenbrier.....	4,030
Rudy triangulation station.....	Fairmont.....	Marion.....	1,802
Sharp Knob (Gauley Mountain).....	Huntersville.....	Pocahontas.....	4,545
Shaver triangulation station.....	Parsons.....	Tucker.....	3,554
Sideling Hill.....	Pawpaw.....	Morgan.....	2,008
Sinking Creek triangulation station.....	Holbrook.....	Gilmer.....	1,473
Skin Poplar Gap.....	Raleigh.....	Raleigh, Wyoming.....	2,330
Sleepy Creek Mountain.....	Hancock.....	Morgan.....	1,771
Sleepy triangulation station.....	do.....	do.....	1,533
Spruce Knob (the highest point in West Virginia yet determined).....	Beverly.....	Pendleton.....	4,860
Spruce Knob.....	Huntersville.....	Pocahontas.....	4,730
Sugar Grove Knob.....	Nicholas.....	Greenbrier.....	3,158
Sugarloaf triangulation station.....	Vadis.....	Lewis.....	1,714
Terra Alta Lake (water surface).....	Kingwood.....	Preston.....	2,558
Town Creek Knob.....	Raleigh.....	Fayette, Raleigh.....	3,088
Turkey Mountain.....	Huntersville.....	Webster.....	3,887
Twisted Gun Gap.....	Oceana.....	Mingo.....	1,442
Walnut Gap.....	do.....	Boone, Wyoming.....	2,716
Weavers Knob.....	Lewisburg.....	Greenbrier.....	2,931
Weiss Knob.....	Piedmont.....	Tucker.....	4,490
White Gap.....	Hancock.....	Morgan.....	1,523
Whiteoak Mountain.....	Hinton.....	Raleigh, Summers.....	3,418
Whiterock Mountain.....	Lewisburg.....	Greenbrier.....	3,212
Wildead Knob.....	Nicholas.....	Nicholas.....	2,827
Wolf Creek Mountain.....	Hinton.....	Monroe.....	2,810
Woods Field.....	Nicholas.....	Nicholas.....	2,516
Yokums Knob.....	Beverly.....	Randolph.....	4,330



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